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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,600	09/15/2003	William Jenrette	P16509	2031

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EXAMINER

WALLING, MEAGAN S

ART UNIT	PAPER NUMBER
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2863

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/662,600

Applicant(s)

JENRETTE, WILLIAM

Examiner

Meagan S. Walling

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-19, 23-26, 29 and 30 is/are allowed.
- 6) ☒ Claim(s) 27 and 28 is/are rejected.
- 7) ☒ Claim(s) 20-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/15/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: The abstract fails to include that which is new in the art to which the invention pertains.

Appropriate correction is required.

Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Claim Objections

2. Claims 20-22 are objected to because of the following informalities:

Claims 20-22 recite the limitation "the method" in claim 19. Because claim 19 teaches "an article of manufacture," there is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 27 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Komatsu (US 6,094,449).

Regarding claim 27, Komatsu teaches sampling a signal (column 2, lines 64-65); determining delta integrated power spectrum values for a plurality of samples (column 4, lines 4-9); selecting a plurality of highest delta integrated power spectrum values (column 4, lines 9-13); and combining highest delta integrated power spectrum values that were taken from adjacent samples (column 4, lines 9-13).

Regarding claim 28, Komatsu teaches that combining the highest delta integrated power spectrum values includes adding the values of the adjacent highest delta integrated power spectrums (column 4, lines 9-13).

Allowable Subject Matter

4. Claims 1-19, 23-26 and 29-30 are allowed.

The following is an examiner's statement of reasons for allowance:

The primary reason for the allowance of claim 1 is the inclusion of the limitation of determining power of a frequency component of a signal; accumulating the power for a long-term; accumulating the power for a short-term; finding a delta integrated power spectrum that is a difference between the accumulated power for the long-term and the accumulated power for the short-term; finding a high delta integrated power spectrum and a normalized delta integrated power spectrum; and determining whether the high delta integrated power spectrum represents a signal of interest by comparing the power of the high delta integrated power spectrum to the power of the normalized delta integrated power spectrum. It is this limitation in the claimed combination that has not been found, taught, or suggested by the prior art that makes these claims allowable.

The primary reason for the allowance of claim 13 is the inclusion of the limitation of a processor to determine imaginary and real portions of a signal and determine a frequency component of the signal; a first filter to accumulate power of the frequency component for a long-term; a second filter to accumulate power of the frequency component for a short-term; a first differentiator to calculate a delta integrated power spectrum that is a difference between the accumulated power for the long-term and the accumulated power for the short-term; a filter to determine a normalized power for a plurality of delta integrated power spectrums; a memory to store a power value for a highest delta integrated power spectrum; and a second differentiator to determining whether the power value for the high delta integrated power spectrum exceeds the normalized power for the plurality of delta integrated power spectrums by at least a predetermined threshold. It is this limitation in the claimed combination that has not been found, taught, or suggested by the prior art that makes these claims allowable.

The primary reason for the allowance of claim 19 is the inclusion of the limitation of a computer readable medium having stored thereon instructions which, when executed by a processor, cause the processor to: determine power of a frequency component of a signal; accumulate the power for a long-term; accumulate the power for a short-term; find a delta integrated power spectrum that is a difference between the accumulated power for the long-term and the accumulated power for the short-term; select a high delta integrated power spectrum; calculate a normalized delta integrated power spectrum; and determine whether the high delta integrated power spectrum represents a signal of interest by comparing the power of the high delta integrated power spectrum to the power of the normalized delta integrated power spectrum. It is this limitation in the claimed combination that has not been found, taught, or suggested by the prior art that makes these claims allowable.

The primary reason for the allowance of claim 23 is the inclusion of the limitation of an analog front end clock having an input to be coupled to an analog signal and an output; a sampler having an input coupled to the analog front end clock and an output coupled to a demodulator; a processor coupled to the output of the sampler to determine imaginary and real portions of a second signal present at the output of the sampler and determine a frequency component of the second signal; a first filter to accumulate power of the frequency component for a long-term; a second filter to accumulate power of the frequency component for a short-term; a first differentiator to calculate a delta integrated power spectrum that is a difference between the accumulated power for the long-term and the accumulated power for the short-term; a filter to determine a normalized power for a plurality of delta integrated power spectra; a memory to store a power value for a highest delta integrated power spectrum; and a second differentiator to

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determining whether the power value for the high delta integrated power spectrum exceeds the normalized power for the plurality of delta integrated power spectrums by at least a predetermined threshold. It is this limitation in the claimed combination that has not been found, taught, or suggested by the prior art that makes these claims allowable.

The primary reason for the allowance of claim 29 is the inclusion of the limitation of a demodulator to couple to an incoming signal; a processor to determine imaginary and real portions of a signal and determine a frequency component of the signal; a first filter to accumulate power of the frequency component for a long-term; a second filter to accumulate power of the frequency component for a short-term; a first differentiator to calculate a delta integrated power spectrum that is a difference between the accumulated power for the long-term and the accumulated power for the short-term; a filter to determine a normalized power for a plurality of delta integrated power spectrums; a memory to store a power value for a highest delta integrated power spectrum; and a second differentiator to determining whether the power value for the high delta integrated power spectrum exceeds the normalized power for the plurality of delta integrated power spectrums by at least a predetermined threshold. It is this limitation in the claimed combination that has not been found, taught, or suggested by the prior art that makes these claims allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meagan S. Walling whose telephone number is (571) 272-2283. The examiner can normally be reached on Monday through Friday 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

msw

**BRYAN BUI
PRIMARY EXAMINER**

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3/4/05